Report Date: 30 Oct 2013

Summary Report for Individual Task
052-243-1606
Install Survey Stakes for Vertical Projects
Status: Approved

Condition: As the member of a survey team responsible for installing survey stakes, given a prism pole, survey stakes, hammer, marker, and Technical Manual (TM) 3-34.55. This task should not be trained in MOPP.

Standard: Install survey stakes for a vertical project according to prepared plans in a manner that is most useful to construction forces.

Special Condition: This task should be trained simultaneously with Task # 052-243-1513, Perform Layout of a Construction Project.

Safety Level: Low

MOPP: Never

Task Statements

Cue: None

DANGER

None

WARNING

None

CAUTION

None

Remarks: None

Notes: Stake installation direction will come from the Instrument Operator (IO). Relay any changes in target height to the IO.

Performance Steps

1. Install structure/ building corner stakes as indicated by the IO.

a. Following the direction of the IO, determine the point location with the prism pole.

b. Emplace a 2”x2”x12” stake at the locations required by stakeout data. Drive the stake flush/near flush to the surface and mark the precise location on the stake with a finish nail.

Note: When soil conditions prohibit using wooden stakes, a section of Re-Bar (Reinforcing steel) may be substituted.

c. Emplace a grade stake near each corner stake (+/- 2’) and outside the structure perimeter. Mark each grade stake with corresponding corner and elevation data.

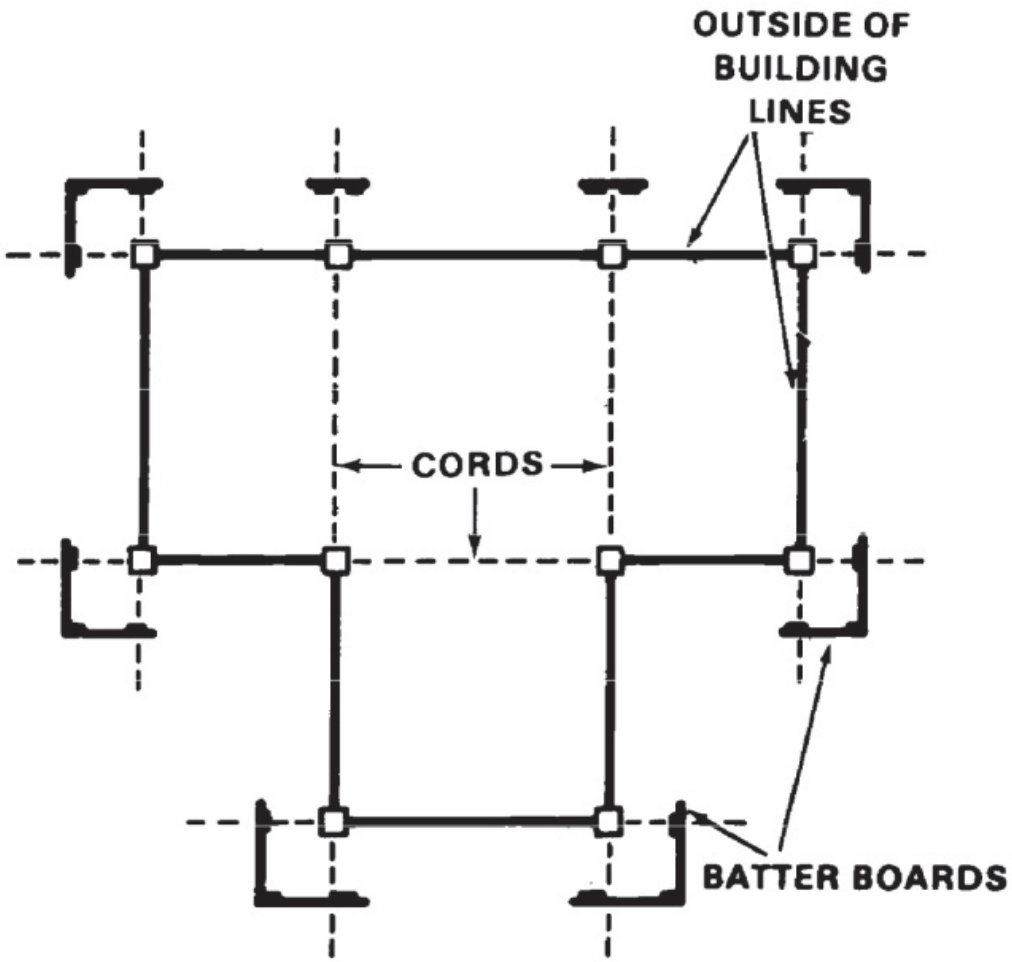

Figure 1: Building Corner Stake Layout

2. Install utility stakes as indicated by the IO.

a. Following the direction of the IO, determine the point location with the prism pole.

b. Emplace a 1”x2”x18” centerline stakes to identify the trench location for the proposed utility.

c. Mark stake on front with CL (centerline) and with station data.

d. Mark stake on back with invert grade elevation.

e. Emplace a 1”x2”x18” offset stakes at locations required by stakeout data.

(1) Mark each offset stake on the front with the same data as the CL stake it references and circle the offset distance.

(2) Mark each stake on the back with the same data as the CL stake it references.

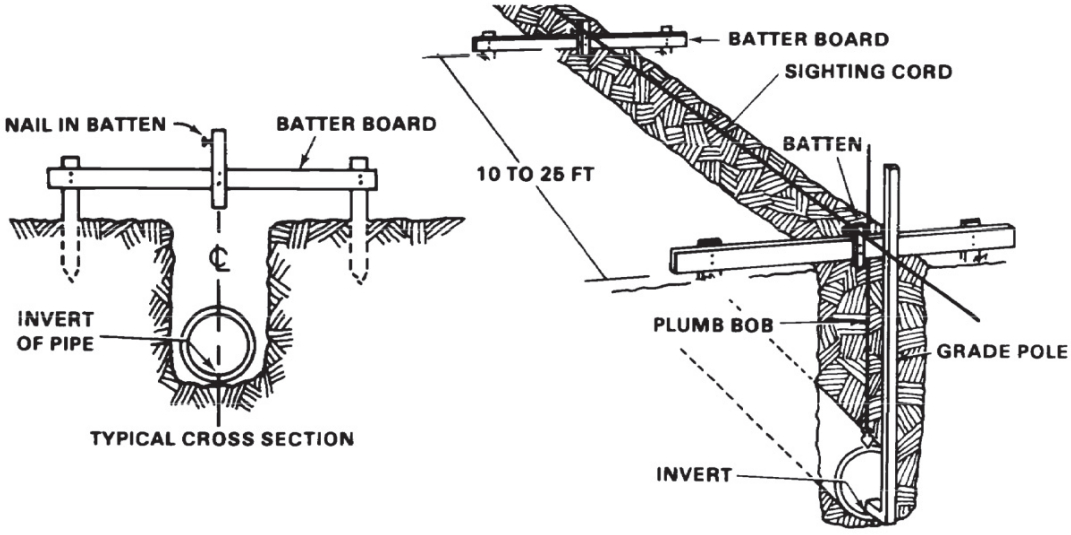

Figure 1: Utilities Layout

(Asterisks indicates a leader performance step.)

Evaluation Preparation: Setup: Provide the Soldier with the items that are listed in the condition statement. Ensure that all safety precautions are followed. Prepare the testing site and equipment in advance to ensure that the task standard can be met.

Briefing: Give the Soldier a safety briefing and read the task, condition, and standard before starting the test.

PERFORMANCE MEASURES	GO	NO-GO	N/A
1. Installed structure/ building corner stakes as indicated by the IO.			
a. Followed direction of the IO to determined point location.			
b. Emplaced 2”x2”x12” stake at the locations required by stakeout data.			
c. Emplaced grade stake near each corner stake (+/- 2’), and outside the structure perimeter and marked each stake with the corresponding corner and elevation data.			
2. Installed utility stakes as indicated by the IO.			
a. Followed direction of the IO to determined point location.			
b. Emplaced 1”x2”x18” centerline stakes to identify trench location.			
c. Marked stake on front with CL (centerline) and station data.			
d. Marked stake on back with invert grade elevation.			
e. Emplaced 1”x2”x18” offset stakes at locations required by stakeout data.			

Supporting Reference(s):

Step Number	Reference ID	Reference Name	Required	Primary
	TM 3-34.55	Construction Surveying	Yes	Yes

Environment: Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects. Refer to FM 3-34.5 Environmental Considerations and GTA 05-08-002 ENVIRONMENTAL-RELATED RISK ASSESSMENT. Prior to class, instructors are to conduct an Environmental Risk Assessment IAW FM 3-100.4. The assessment should be recorded on the Risk Management Worksheet found in Appendix F of FM 3-100.4. During the assessment, instructors should be on the lookout for environmental hazards, Environmental hazards include all activities that may pollute, create negative noise-related effect, degrade archaeological, cultural resources, negatively affect threatened or endangered species' habitats.

Safety: In a training environment, leaders must perform a risk assessment in accordance with FM 5-19, Composite Risk Management. Leaders will complete a DA Form 7566 COMPOSITE RISK MANAGEMENT WORKSHEET during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, Multiservice Tactics, Techniques, and Procedures for Nuclear, Biological, and Chemical (NBC) Protection, FM 3-11.5, Multiservice Tactics, Techniques, and Procedures for Chemical, Biological, Radiological, and Nuclear Decontamination. All operations will be performed to protect and preserve Army personnel and property against accidental loss. Procedures will provide for public safety incidental to Army operations and activities and safe and healthful work places, procedures, and equipment.

Prerequisite Individual Tasks : None

Supporting Individual Tasks :

Task Number	Title	Proponent	Status
052-243-1604	Perform as a Rodman During Conventional Surveying Observations	052 - Engineer (Individual)	Analysis Completed
052-243-1513	Perform Layout of a Construction Project	052 - Engineer (Individual)	Approved
052-243-1605	Install Survey Stakes for Horizontal Projects	052 - Engineer (Individual)	Approved

Supported Individual Tasks :

Task Number	Title	Proponent	Status
052-243-3300	Prepare a Preliminary Construction Site Analysis	052 - Engineer (Individual)	Analysis
052-243-1605	Install Survey Stakes for Horizontal Projects	052 - Engineer (Individual)	Approved
052-243-1513	Perform Layout of a Construction Project	052 - Engineer (Individual)	Approved
052-243-3014	Inspect Survey Layouts	052 - Engineer (Individual)	Analysis

Supported Collective Tasks :

Task Number	Title	Proponent	Status
05-6-0715	Coordinate Construction Operations	05 - Engineers (Collective)	Approved
05-3-5222	Construct a Steel-Frame Pre-engineered Structure	05 - Engineers (Collective)	Approved
05-3-5223	Construct a Concrete Structure	05 - Engineers (Collective)	Approved
05-3-5220	Construct a Wood Frame Structure	05 - Engineers (Collective)	Approved
05-1-0719	Perform Quality Control Operations	05 - Engineers (Collective)	Approved